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| 10/029,928      | 12/31/2001  | James M. Doherty     | T00362; AT1-142     | 5904             |

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| EXAMINER |
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CHANKONG, DOHM

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2452

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/029,928 | <b>Applicant(s)</b><br>DOHERTY, JAMES M. |  |
|                              | <b>Examiner</b><br>DOHM CHANKONG     | <b>Art Unit</b><br>2452                  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This non-final rejection is in response to Applicant's request for continued examination. Applicant amends claims 29, 36, and 43 and previously cancelled claims 1-28. Accordingly, Applicant presents claims 29-43 for further examination.

#### **I. CONTINUED EXAMINATION UNDER 37 CFR 1.114**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/16/2010 has been entered.

#### **II. RESPONSE TO ARGUMENTS**

Applicant's arguments with respect to claims 29-43 have been considered but are moot in view of the new ground(s) of rejection which was necessitate by Applicant's amendment to claims 29, 36, and 43. This rejection introduces a new prior art reference in response to Applicant's new limitation directed to a user configured economic setpoint.

#### **III. CLAIM REJECTIONS 35 U.S.C. § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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- A. CLAIMS 29 AND 36 ARE REJECTED UNDER 35 U.S.C. 112, SECOND PARAGRAPH, AS BEING INDEFINITE FOR FAILING TO PARTICULARLY POINT OUT AND DISTINCTLY CLAIM THE SUBJECT MATTER WHICH APPLICANT REGARDS AS THE INVENTION.**

Claims 29 and 36 are rejected because they are a combination of an apparatus and method claim. Specifically, the preamble of the claims recite a residential gateway and control server respectively while the body of the claims simply recite method steps. Such claims are indefinite under 35 U.S.C. § 112, second paragraph. *See* MPEP § 2173.05(p).

#### **IV. CLAIM REJECTIONS 35 U.S.C. § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- A. Claims 29-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Petite et al.* (U.S. Patent Number 6,437,692), hereinafter referred to as *Petite*, in view of *Mecham et al.* (U.S. Patent Number 6,314,340), hereinafter referred to as *Mecham*, in further view of *Schneider*, U.S. Patent No. 6,990,459.**

*Petite* disclosed a system for monitoring and controlling remote devices wherein the remote devices may be sensors that communicate wirelessly with a local gateway via transceivers. In an analogous art, *Mecham* disclosed an irrigation controller that collects and utilizes environmental data.

All citations in the following mapping refer to *Petite* unless otherwise noted. Some claims will be discussed together. Those claims which are essentially the same except that they

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set forth the claimed invention as a control server or an article of manufacture are rejected under the same rationale applied to the described claim.

**Claims 29, 36, and 43**

*Petite* as modified by *Mecham* and *Schneider* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network (*Petite*, local gateway 210 and column 17, lines 35-42), said residential gateway connecting at least one residential device over said in-home network, the residential gateway:

forwarding state information of said at least one residential device to a control server over said WAN (*Petite*, column 12, lines 24-40);

forwarding economic setpoint information to said control server over said WAN (*Petite*, column 13, lines 19-30), said economic setpoint information being a cost below which the cost of operation of the residential device must stay [*Schneider*, column 12 «lines 29-40»: disclosing that a user specifies a "capital" constraint | column 4 «lines 18-32»: disclosing that the capital is an "input" in determining different cropping strategies], said economic setpoint being configured by a user of said at least one residential device [*Schneider*, column 4 «lines 30-32»: disclosing that capital can be varied | column 5 «lines 50-55»: user may increase or decrease capital input | Fig. 18: disclosing the user interface that allows a user to input a specific capital amount];

receiving control parameters from said control server over said WAN (*Petite*, column 6, lines 15-30), said control parameters determined by the control server based on at least the following information: relevant control information accessed from one or more climatic information providing servers on said WAN (*Mecham*, column 1, lines 43-48), said forwarded state information of said at least one residential device (*Petite*, column 14, line 51 through

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column 15, line 1) and said forwarded economic setpoint information (*Petite*, column 13, lines 8-30), wherein the control server determines the control parameters based upon an optimal level for the control parameters that remains within the economic setpoint, wherein said optimal level may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint [*Schneider*, column 4 «lines 9-32»: disclosing generating an optimum cropping strategy (i.e., control parameters) based on a variety of user inputs including capital limits | column 5 «lines 50-55»: user may increase or decrease capital input | column 12 «lines 59-64»].

whereby said residential gateway controls said at least one residential device based on said received control parameters (*Petite*, column 13, lines 19-23).

*Petite* did not explicitly disclose: (1) information accessed from a climatic information providing server; (2) said economic setpoint information being a cost below which the cost of operation of the residential device must stay; and (3) wherein the control server determines the control parameters based upon an optimal level for the control parameters that remains within the economic setpoint, wherein said optimal level may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint. However, all three features were well known in the art at the time of Applicant's invention as evidenced by *Mecham* and *Schneider*.

1. *Mecham* discloses the first limitation.

As indicated in the foregoing mapping, *Mecham* discloses the use of weather station servers to provide climatic information. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of *Petite* by adding the

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ability to utilize information accessed from a climatic information providing server as provided by *Mecham*. Here the combination satisfies the need for advanced monitoring and control system solutions in distributed systems. See *Petite*, column 2, lines 28-30.

2. *Schneider* discloses the second and third limitations.

As cited in the foregoing mapping, *Schneider* discloses a user-controllable capital constraint (i.e., economic setpoint information) being a cost below which the cost of operation of the residential device must stay. *Schneider's* capital constraint represents a cost at which operation of the entire farming system must stay.

It would have been obvious to one of ordinary skill in the art to have modified *Petite* to include the economic setpoint features taught by *Schneider*. Such a modification to *Petite* is an example of using a known technique (*Schneider's* economic setpoint feature) to improve similar systems (*Petite's* remote monitoring and controlling system) in the same way (*Petite* improved to include a feature to keep water and electrical usage within a budget). See MPEP § 2143.

*Schneider* also discloses the third limitation where a farm management plan containing control parameters is generated based upon an optimized level within the indicated capital constraint (i.e., control server determines the control parameters based upon an optimal level within the economic setpoint) and where the capital constraint may be increased (or decreased) which would effect the optimized plan (i.e., may not correspond to an optimal performance if the optimal performance requires a higher economic setpoint).

It would have been obvious to one of ordinary skill in the art to have modified *Petite* to include the irrigation optimization functionality taught by *Schneider*. Such a modification to *Petite* is an example of using a known technique (*Schneider's* optimizing control parameters

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within a economic limit) to improve similar systems (*Petite's* remote monitoring and controlling system) in the same way (*Petite* improved to include a feature optimize water schedules within economic limits such as capital constraint). *See* MPEP § 2143.

**Claims 30 and 37**

*Petite* as modified by *Mecham* and *Schneider* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said at least one residential device is a home irrigation system (*Petite*, figure 8) comprising: an irrigation controller connected to said residential gateway (*Petite*, figure 8, item 814); and at least one sprinkler connected to said irrigation controller (*Petite*, figure 8, item 817).

**Claims 31 and 38**

*Petite* as modified by *Mecham* and *Schneider* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 30, wherein a watering cycle constitutes said control parameters for said home irrigation system (*Petite*, column 13, lines 19-23).

**Claims 32 and 39**

*Petite* as modified by *Mecham* and *Schneider* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 31, wherein said watering cycle is also determined based on said economic point information (*Petite*, column 13, lines 23-30).

**Claims 33 and 40**

*Petite* as modified by *Mecham* and *Schneider* discloses a residential gateway that connects



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a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said economic setpoint information is set to control amount of electricity or water used by said at least one residential device during a particular time period (*Petite*, column 13, lines 23-30).

#### **Claims 34 and 41**

*Petite* as modified by *Mecham* and *Schneider* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 30, wherein said irrigation controller is connected to said residential gateway via an IEEE 802.11b wireless interface.

Concerning claims 34 and 41, *Petite* did not explicitly state the use of an IEEE 802.11b wireless interface. *Petite* does however state a wireless interface between the residential device and the residential gateway. See column 2, lines 54-62. Also, the IEEE 802.11b standard for wireless communications was well known in the art at the time of the applicant's invention so it would be a clear extension of *Petite*'s system to use this standard for his wireless communications since his system already includes a wireless interface. Thus, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of *Petite* by adding the ability to use an IEEE 802.11b wireless interface.

#### **Claims 35 and 42**

*Petite* as modified by *Mecham* and *Schneider* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said Wide Area Network is the Internet (*Petite*, WAN 230).

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**V. CONCLUSION**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Nielsen et al., U.S. Patent No. 5,251,153.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-3942. The examiner can normally be reached on Monday to Friday [10 am - 6 pm].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on (571)272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DOHM CHANKONG/  
Primary Examiner, Art Unit 2452